



Detecting bioterrorism: Is chemistry enough?

March 12, 2014

Los Alamos scientist addresses bioaerosol risks and detection

LOS ALAMOS, N.M., March 12, 2014—A biological attack could spread through a population quickly and have a devastating effect. An early detection system would be key to reducing a population's chance of exposure. The challenge is how to detect and identify an agent before people start getting sick.

"The 2001 anthrax letters contained only a few grams of material--about two sugar cubes' worth. The federal government is concerned about attacks with hundreds of grams of material. So how do we protect ourselves against an attack with a whole bag of sugar the next time?" said Kristin Omberg, a Los Alamos National Laboratory chemist who has led bioterrorism response research efforts.

In an online webinar provided by the American Chemical Society, Omberg will offer discussion on the possibilities and problems of bioaerosol detection systems and the chemistry of keeping the population safe. The discussion will include the following:

- The basics of how commonly used bioaerosol detection systems work
- How atmospheric transport and dispersion modeling and molecular biology are combined to create systems to detect a bioaerosol attack
- Why a confirmed laboratory result for a biothreat agent is often inconclusive
- How chemists can better address biological terror.

Webinar details

Date: Thursday, March 13, 2014

Time: 2:00-3:00 pm ET

Fee: Free

Link: See more at [Detecting Bioterrorism: Is Chemistry Enough?](#)

Kristin Omberg is the deputy group leader at the [Center for Integrated Nanotechnologies](#), a joint Los Alamos and Sandia national laboratories facility that explores the integration of new nanoscale materials into novel architectures and microsystems. She has been the principal investigator on several homeland security and defense programs, including the Department of Homeland Security's BioWatch

Program. Her BioWatch team advises cities on the placement of detection equipment to optimize population protection, and on post-detection decision-making. She also manages a laboratory that evaluates biothreat assays. A Fellow of the American Chemical Society, she has a PhD in Chemistry from the University of North Carolina at Chapel Hill and a BS in Chemistry from Gonzaga University.

Darren Griffin, PhD is Professor of Genetics at the University of Kent, UK. Previously he was Professor of Genetics at Brunel University. In 2002, he was admitted as a fellow of the Society of Biology and in 2008 he was awarded both a fellowship of the Royal College of Pathologists and Doctor of Science from the University of Manchester. He was awarded the Institutional Teaching Prize for his work in supervising graduate students and was recently shortlisted for Research Project of the Year by the Times Higher Education supplement. Dr. Griffin completed his post-doctoral research in Cleveland, Ohio and at The University of Cambridge. He received his PhD at University College London in 1992, graduated from the University of Manchester in 1988.

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